

**REMARKS**

Claims 1 and 3-6, 10-15, 17, 18 and 20 are pending in this application. By this Amendment, claims 1, 6, 10, 15 and 18 are amended. Claims 2, 7-9, 16 and 19 are canceled without prejudice to or disclaimer of the subject matter recited therein. No new matter is added. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Applicants appreciate the courtesies shown to Applicants' representatives by Examiner Jankus in the August 22, 2007 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

The Office Action rejects claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over Choate (U.S. Patent No. 4,685,143) in view of Castleman (digital image processing), 1996, Prentiss Hall, Inc., pages 32-33, 447-485. The rejection of claims 2, 7-9, 16 and 19 are moot because they are canceled by this Amendment. Applicants respectfully traverse this rejection with respect to the remainder of the claims.

Choate and Castleman, either individually or in combination, fail to disclose or suggest reclassifying the polarity value of the edge pixel if at least one pixel in a second neighborhood of the edge pixel does not have a same polarity value, as recited in independent claim 1 and similarly recited in claims 6, 15 and 18.

Choate, at col. 2, line 5-col. 3, line 43, discloses a method and apparatus for detecting edge spectral features. In col. 2, lines 49-52, Choate discloses that a non-linear feature detector detects edge reversals in an image. Choate further discloses that edge reversals relate to relative oblong objects such as the wingtips of a landing aircraft. In col. 12, lines 22-27, Choate further describes the edge reversal feature corresponding to the turn direction of a particular edge. However, Choate fails to disclose any reclassification of any pixels.

Castleman fails to cure the deficiencies of Choate. Castleman, at page 465, merely discloses Sobell operators, which are commonly known in the art. Sobell operators, as disclosed by Castleman, are the dot product operations on two 3x3 matrices. Such dot product matrix operations are used to assign magnitudes to pixel areas, and are useful for determining edges. However, Castleman fails to disclose or suggest any reclassification.

Therefore, Choate and Castleman, either individually or in combination, fail to disclose or suggest reclassifying the polarity value of the edge pixel if at least one pixel in a second neighborhood of the edge pixel does not have a same polarity value, as recited in independent claim 1 and similarly recited in claims 6, 15 and 18.

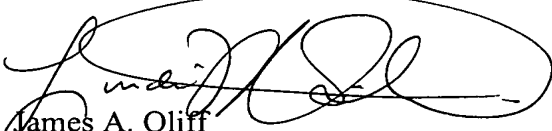
As discussed during the interview, the phrase "second neighborhood of an edge pixel" refers to an area of pixels surrounding a pixel of interest that may be the same or may be different from the first neighborhood of the pixel of interest. A further explanation on the definition of "neighborhood" can be found, for example, at least at paragraphs [0062], [0083] and [0123].

In view of the foregoing, independent claims 1, 6, 15 and 18 define patentable subject matter. Claims 3-5, 10-14, 17 and 20 depend from independent claims 1, 6, 15, and 18, respectively, and therefore are patentable for the same reasons, as well as for the additional features recited therein. Thus, Applicants respectfully request that the Examiner withdraw the rejections.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-6, 10-15, 17, 18 and 20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

  
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